Exhibit 5

**Bold, Underlined** text indicates additions

Bold, Strikethrough text indicates deletions

**DTC Settlement Service Guide** 

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**About Settlement** 

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## **Service Topics**

## **Activation / Account Coding**

DTC's Activation/Account Coding product describes the various account options available to your participant account.

### Requirements

To use DTC services, you must:

- Become a DTC participant
- Make your mandatory deposit to DTC's Participants Fund
- Engage the services of a settling bank to settle daily on your behalf, and submit a formal settling bank agreement to DTC.

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## Participants Fund and Preferred Stock Investment

### **Purpose**

The Participants Fund and the Participants Preferred Stock Investment provided in DTC Rule 4 create liquidity and collateral resources to support the business of DTC and to cover losses and liabilities incident to that business. For this purpose, every Participant has a Required Participants Fund Deposit and a Required Preferred Stock Investment; the amount of each is based on the Participant's activity at DTC as further explained in this Service Guide. Additionally, a Participant may make a Voluntary Participants Fund Deposit, to further support its activities. The Required and Voluntary Participants Fund Deposits must be in cash, which, If if a participant Participant fails to settle for any reason, the all-eash Participants Fund provides are available to DTC as immediate liquidity to complete settlement and collateral to support any borrowing against DTC lines of credit.

#### **Amounts**

Each Participant must make a minimum deposit of \$10,000 \$7,500 to the Participants Fund. Many Participants are required to deposit additional amounts based on the size of their intraday net debits in the system based upon a 60 business day rolling average of the Participant's six highest intraday net debit peaks in the system. A Participant's Pportion of the Participants Fund is in direct relation to the liquidity requirements generated by the Participant and its Affiliated Family, if any, as more fully described below.

The Participants Fund is invested in overnight repurchase agreements and interest earned is passed along to the Participants ratably in accordance with their deposits to the Participants Fund. The Required Preferred Stock Investment of a Participant must be in a minimum amount of a par value of \$2,500. A Participant's actual Required Preferred Stock Investment is calculated on a substantially similar basis to the calculation of the Required Participants Fund Deposit.

# How the Required Deposit to the Participants Fund Deposit is and the Required Preferred Stock Investment are Calculated for a Participant

DTC monitors the levels of each Participant's net settlement debits during each Business Day and records the highest net debit. This measure of liquidity is referred to as the Participant's intraday net debit peak.

### Required Participants Fund Deposit Calculation

The aggregate amount of all Participants' Required Participants Fund Deposits is \$1.15 billion. The following variables determine each Each Participant's required Participants Fund dDeposit to the Participants Fund for the first \$600,000,000 \$450,000,000 of the aggregate Participants Fund (for all Participants) is calculated taking account of the following factors:

- 1. Size of intraday net debit peaks: the six largest intraday net debit peaks over a rolling 60-business-day period are recorded for each Participant.
- 2. Minimum deposit: \$10,000.
- 3. Fund size: \$600,000,000.
- The minimum deposit is \$7,500 per Participant which, across all Participants (the number of which may vary from time to time) adds up to an aggregate threshold amount of cash in the Participants Fund. The difference, if any, between that aggregate threshold amount and \$450,000,000 (the "PF Differential") is then allocated ratably among all Participants based on each Participant's average (the "PF Average") of its six largest intraday net debit peaks over a rolling 60 business day period.
- 2. Based on the PF Average for each Participant, the calculation incrementally allocates the PF Differential to calculate the required cash deposit of each Participant. Participants with the highest PF Averages will, accordingly, be required to make the largest required deposits and Participants with the lowest PF Averages will be required to make smaller deposits or even, potentially, no amount above the \$7,500 minimum.

Example, for illustrative purposes only:

DTC establishes a \$600,000,000 Participants Fund and has only three participants: A, B, and C.

Each Participant's required minimum deposit is \$10,000, for a total of \$30,000, leaving \$599,970,000 as the incremental fund deposit amount needed for the Participants Fund.

The three Participants' respective average intraday net debit peaks are used to allocate the \$599,970,000 among them. A's net debit peak is \$600,000,000, B's is \$800,000,000, and C's is \$800,000,000. Since all three incurred net debit peaks of at least \$600,000,000, each created liquidity needs of \$600,000,000 and would contribute equally to provide DTC's first \$600,000,000 of liquidity. Each would be responsible for a \$10,000 minimum deposit plus a \$199,990,000 increment, bringing the total to \$200,000,000 for each. B and C would each be assigned an additional \$100,000,000 increment since they were responsible for creating liquidity needs up to \$800,000,000.

Together, A, B and C have been assigned incremental amounts totaling \$799,970,000. Since the goal is to create a \$600,000,000 Participants Fund, the \$799,970,000 must be prorated downward to \$599,970,000, the amount needed in addition to their minimum contributions to achieve \$600,000,000.

Each participant's increments would be reduced by applying a factor of .75 (i.e., \$599,970,000 /\$799,970,000). Their required deposits would then be:

Minimum+ (Increments x. 75) = Total

A's: \$10,000 + (\$199,990,000 x .75 .) = \$150,000,000

 $B's: $10,000 + ($299,990,000 \times .75) = $225,000,000$ 

 $C's: $10,000 + ($299,990,000 \times .75) = $225,000,000$ 

Assuming the total size of the Participant's fund is \$1,300,000,000, the remaining \$700,000,000 is allocated proportionately among the Affiliated Families whose aggregate net debit caps exceed \$2,300,000,000. This allocation will be based on the aggregate net debit cap of the Affiliated Family, up to a maximum of \$3,000,000,000. The calculation to determine a Participants portion of the remaining \$700,000,000, is a two-step process.

The remaining \$700,000,000 aggregate amount of Required Participants Fund Deposits (the "Remaining Amount") is allocated proportionately among the Affiliated Families whose aggregate Net Debit Caps exceed \$2.15 billion, up to a maximum Aggregate Affiliated Family Net Debit Cap of \$2.85 billion. The calculation to determine a Participant's portion of the Remaining Amount is a two-step process, using algorithms described below, to: (i) calculate an Affiliated Family's portion of the Remaining Amount, and (ii) determine each Participant's portion of their Affiliated Family's allocation.

Step One:

Algorithm used to calculate the Affiliated Family's portion of the 700,000,000:

- Only those Affiliated Families whose total NDC Aggregate Affiliated Family Net Debit Cap exceeds \$2,300,000,000 \$2,150,000,000 will be allocated a portion of the \$700,000,000 Remaining Amount.
  - a. The greater the <u>Aggregate</u> Affiliated Family <u>NDE Net Debit Cap</u>, the larger allocation the Affiliated Family will receive. The first step of the calculation is to determine the amount in <u>by</u> which

the <u>Aggregate</u> Affiliated Family net debit cap Net Debit Cap exceeds \$2,300,000,000 \$2,150,000,000. This is called the "Overage".

To calculate the allocation percentage <u>for an Affiliated Family of</u>
 <u>Participants</u>, the program will perform the following:

### (Affiliated Family NDC - \$2,300,000,000

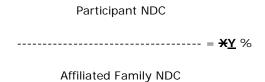


- c. The result of the above calculation (X) will be multiplied by X% of \$700,000,000 to determine the allocation. This calculation will be performed for each of the Affiliated Families whose aggregate NDC is greater than\$2,300,000,000 is the amount of the Affiliated Family allocation.
- d. The sum of the Affiliated Family allocations equals \$700,000,000.

Step Two:

<u>An Algorithm algorithm is</u> used to determine the Participant's portion of the its "Affiliated Family Aallocation":

Calculation will be based on the Participant's NDC Net Debit Cap (NDC) in relation to their itstotal Aggregate Affiliated Family NDC.



- a. The result of the above calculation (X) will be multiplied by the Y % of the Affiliated Family allocation (See Step 1c). The result is the Participant's portion of the individual "Affiliated Family allocation" that the Participant will pay.
- This calculation will be done for all Participants within a given each
   Affiliated Family that has an Overage.

#### **Required Preferred Stock Investment Calculation**

The following are the steps taken to calculate the Required Preferred Stock Investment Calculation:

- 1. The minimum investment is \$2,500 per Participant which, across all Participants (the number of which may vary from time to time) adds up to an aggregate threshold amount. The difference, if any, between that aggregate threshold amount and \$150,000,000 (the "PS Differential") is then allocated ratably among all Participants based on each Participant's average (the "PS Average") of its six largest intraday net debit peaks over a rolling 60 business day period as of the last day of each quarter year.
- 2. The calculation and reallocation among Participants of the Required Preferred
  Stock Investments are performed as of the last business day of each quarter.
  Based on the PS Average as of the last business day of the quarter for each
  Participant, the calculation incrementally allocates the PS Differential to calculate
  the Required Preferred Stock Investment for each Participant. Participants having
  the highest PS Averages will, accordingly, be required to make the largest
  investment and Participants with the lowest PS Averages will be required to make
  smaller investments or even, potentially, no amount above the \$2,500 minimum.

### **Settlement of Participants Fund Deposits**

The <u>Required</u> Participants Fund <u>dD</u>eposit <u>requirement</u> for each Participant is recalculated daily. If, in the daily calculation, the amount of the difference between the prior day's Required Participants Fund Deposit and the newly calculated Required Participants Fund Deposit is equal to or exceeds \$500,000 and the difference represents 25 percent or more of the newly calculated required fund deposit, the affected Participant must (to the extent any excess amount of the Participant's Actual Participants Fund Deposit does not already satisfy the new requirement) deposit the difference in the Participants Fund on the same Business Day that the difference was calculated and a report or other notification of the change is made available to the Participant.

In addition, after settlement on the last business day of each month, DTC calculates each Participant's requirement. Each participant will be notified of their new requirement on the first Business Day of the month. If a Participant's requirement has increased beyond the value it currently has on deposit at DTC, a debit transaction will process in its settlement account and this deficit will be collected with their DTC settlement that day.

If the Participant is required to increase its deposit, the Participant will be notified, and the amount will be systematically charged to the settlement account of the affected Participant as a Participants Fund contribution (Activity Code 70-01).

If the deposit requirement of a Participant decreases, the Participant will be notified at least quarterly, but the Participant can inquire and withdraw excess deposits monthly. This allows a Participant to leave excess cash in the Participants Fund and reduce the level of administration that would otherwise be necessary. DTC will also accept voluntary excess deposits to the Participants Fund for this purpose.

This section shall apply only to the calculation and collection of DTC Participants Fund Deposits as described above and does not supersede or limit any provisions of the DTC Rules or any rights of DTC in accordance with applicable law and DTC's Rule and Procedures, including but not limited to with respect to transactions in securities and money payments.

### **Reallocation of Preferred Stock**

On the first settlement cycle of each quarter, the aggregate of the Required Preferred Stock Investment of all Participants will be reallocated among all Participants, based up the recalculation of each Participant's Required Preferred Stock Investments as described above. A Participant may be credited a settlement amount if it is selling Preferred Stock or debited as settlement amount if it is purchasing additional Preferred Stock, as appropriate.

## Submitting an Initial Participants Fund Contribution Deposit or a Voluntary Excess Deposit

For initial deposits by new Participants and voluntary **excess**deposits by existing Participants, wire the funds to DTC, formatting the instruction to conform to Fedwire standards for Fed fund transfers.

In this field	Enter
Receiving Bank ABA Number	DTC's ABA Number: 026002066.
Receiving Bank Name	DTC's telegraphic name: DTC SDFS.
Originator (ORG)	The name of the Participant whose account is to be credited.
Originator to Beneficiary (OBI)	Settlement Fund Deposit (SFD), followed by a slash and the Participant's account number. For example:  OBI = SFD/123.
	Note- The data in the Originator to Beneficiary Information (OBI) field is required for processing by DTC. For banks that use another field name, include OBI in your entry. For example: BBI = OBI SFD/123.

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## **Risk Management Controls**

### **About the Product**

Risk Management Controls protect you from the inability of one or more participants to pay their settlement obligations. Risk Management Controls are based on guidelines established by the Federal Reserve Bank (FRB). DTC currently employs four primary Risk Management Controls for processing securities:

- Collateralization
- Net debit caps Net Debit Caps
- Largest Provisional Net Credit (LPNC) for Money Market Instruments (MMIs)

• Issuer/Participant Number (IPN) Collateral Control.

### Collateralization

Collateralization ensures that your account has sufficient collateral for DTC to liquidate if you fail to pay your settlement obligation and become insolvent. DTC's collateralization procedures prevent the completion of transactions that would cause your net debit to exceed the total available collateral in your account.

DTC operates on a fully collateralized basis. You are required to have sufficient collateral in your account to support net settlement debits you incur. Transactions that would cause your net debit to exceed the total value of collateral in your account are held in a recycle (pend) queue until sufficient collateral is available.

Your primary sources of collateral are:

- Cash deposited to the Participants Fund
- Proprietary or firm positions (such as dealer, investment, or margin positions) that you
  designate as collateral
- · Securities received (and not paid for) versus payment
- Securities added to your account and not received versus payment (such as deposits, free deliveries, free pledge releases, release of segregated securities) that you designate as collateral.

### Collateral Valuation of Securities

The value of securities designated as collateral is based on the prior business day's closing market price, less a haircut. Haircuts are used to protect DTC and its participants from price fluctuations if DTC is required to liquidate collateral of an insolvent participant. Furthermore, because DTC may have to finance a participant's failure overnight, DTC's haircut structure takes into consideration haircuts imposed by our line-of-credit banks. The full market value of securities is not normally obtainable from a bank that accepts securities as collateral to support a loan; banks generally consider the relative price volatility of the collateral and impose a haircut on the market value of securities. Securities that are not acceptable to DTC's line-of-credit banks do not receive collateral value in our system; therefore, a 100 percent haircut is applied to these securities.

DTC employs haircuts ranging from 2 to 100 percent. Because the collateral value of securities is based on their prior day's closing market prices, these haircuts may not be sufficient in cases where prices fall dramatically intraday. DTC can reprice and modify haircuts of selected issues intraday and can systemically revalue the collateral of participants holding these securities.

## Using the Collateral Monitor to Measure Available Collateral

DTC tracks collateral in your account by a control position called the Collateral Monitor (CM). At the opening of each business day, your CM is credited with your Participants Fund deposit. At all times, the CM reflects the amount by which the collateral in your account exceeds the net debit in your settlement account. In other words, the CM equals the sum of the value of your collateral and net settlement obligation.

For example, if you have collateral securities with a market value of\$10,000 and a 10 percent haircut, the value of your collateral is\$9,000. If you also incurred a debit of\$8,000, your CM is\$1,000 {(10,000-[0.1 x 10,000]+ (-\$8,000)}.

Conceptually, every transaction translates into a collateral flow and a cash flow, one a credit and the other a debit. The net value of these two flows is used to update the CM. Since the value of securities as collateral is subject to a haircut on the market value, the cash component (for

settlement value) of each transaction is generally greater in value than its securities component. Thus, the completion of a delivery versus payment generally results in an increase in the deliverer's CM and a decrease in the receiver's CM, based on the difference between the collateral value of the securities and the settlement value of the transaction. Transactions that do not have a cash component, such as deposits and "free" deliveries, are considered to have a zero cash component.

When processing a transaction, DTC verifies that the deliverer's and receiver's CMs will not become negative when the transaction completes. If the transaction would cause either party to have a negative CM and thereby be undercollateralized, the transaction will recycle until the deficient account has sufficient collateral to complete (see Recycle Processing).

## **Controlling Collateral**

Securities received versus payment are automatically designated as net additions (NA) because the receiver has not yet paid for these securities. Your CM is credited the collateral value (market value minus the applicable haircut) of all positions designated NA. Conversely, your CM is not affected by positions designated as minimum amount (MA). You can manage your collateral in the following ways:

- Opening (start-of-day) securities positions as collateral: You can give DTC standing
  instructions to designate as collateral all securities in your account at the opening of each
  day. All start-of-day positions are then designated NA, and your CM is credited the
  collateral value of the start-of-day positions. Contact your Relationship Manager to change
  your standing instructions.
- Unvalued additional securities: You can give DTC standing instructions to designate all
  unvalued additions of securities to your account (such as deposits and free DOs received)
  as either NA or MA. Contact your Relationship Manager to change your standing
  instructions.

**Warning!** Consider the implications of classifying your securities as collateral. Collateral can be used to support your debt and therefore can be liquidated by DTC if you are unable to pay your settlement obligation.

• Intraday reclassification of securities: You can submit instructions to DTC using the PTS function DYMA to reclassify as collateral a specific quantity of an issue previously classified as non-collateral. This results in a CM credit equal to the collateral value of the reclassified securities. Conversely, you can use the PTS function DYNA to reclassify collateral securities as non-collateral.

*Note-* A DYNA instruction will not execute if the removal of the collateral from your account would cause your CM or simulated CM to become negative.

• Settlement Progress Payments (SPPs): You can increase your CM by wiring Settlement Progress Payments (SPPs) to DTC's account at the Federal Reserve Bank of New York (FRBNY). Your CM and your settlement account will be credited for the amount of the SPP; thus, SPPs also reduce your actual net debit. See Wire Instructions for more information.)

To view your CM balance, use the PTS function RMCI.

### **Net Debit Caps**

Net debit caps Debit Caps help ensure that DTC can complete settlement, even if a Participant participant participant fails to settle. They are based on your net debit history at DTC and automatically rise or fall relative to the average of your highest intraday net debit peaks in accordance with the calculation described below (in "Calculating Your Net Debit Cap"). A net debit cap Net Debit Cap, recalculated daily, is applied to your account to limit the settlement net debit you could incur at any point during a processing day.

Your net debit cap Net Debit Cap is limited by DTC's established maximum net debit cap Net Debit Cap, the value of which is always set lower than DTC's total available liquidity. Currently, the maximum net debit cap Net Debit Cap you an individual Participant can have is \$1.8 billion.

Before completing a transaction in which you are the receiver, DTC calculates the resulting effect the transaction would have on your account, and determines whether your resulting net balance Net Debit Balance would exceed your net debit cap Net Debit Cap. Any transaction that would cause your net settlement debit to exceed your net debit cap Net Debit Cap is placed on a pending (recycling) queue until another transaction creates credits in your account (see Recycle Processing for more information). Most credits are generated when you deliver securities versus payment; pledge securities for value; receive principal, dividend or interest allocations; or wire funds (SPPs) to DTC's account at the FRBNY.

### **Calculating Your Net Debit Cap**

Net **debit caps Debit Caps** are calculated daily as follows:

- 1. The system records your collateral group's three highest intraday net debit peaks over a rolling 70-business-day period, using simulated net debit peaks instead of actual net debit peaks. If you have elected to group your accounts into separate families (see Grouping Accounts into Collateral Families)-, the system first calculates the average simulated net debit peak of each family, and adds together the average net debit peaks of all your families to obtain your overall average simulated net debit peak.
- 2. The system multiplies your average simulated net debit peak by a factor to determine your net debit cap Net Debit Cap, which cannot exceed DTC's established maximum of\$1.8 billion. (Factors are based on a sliding scale, between 1 and 2, where smaller average peaks are multiplied by larger factors and larger average peaks are multiplied by smaller factors.)

The established minimum net debit cap Net Debit Cap is equal to twice the sum of all participants' participants' minimum deposits to the Fund. For example, if there were 500 DTC participants, and each contributed the minimum fund deposit of\$10,000, the sum of all participants' minimum fund deposits would equal \$5 million. The minimum net debit cap would then be \$10 million.

*Note-* Your settling bank can set your maximum net debit cap Net Debit Cap. However, the maximum amount set by a settling bank cannot exceed the net debit cap Net Debit Cap calculated by DTC's system. DTC may also limit your net debit cap Net Debit Cap to any amount regardless of your intraday net debit peaks.

Although most transactions are subject to Risk Management Controls, the following activities override collateralization and **net debit cap** Net Debit Cap controls:

- Validated (matched) DO reclaims with a settlement value less than \$7.5 million
- Validated payment order (PO) reclaims with a settlement value less than \$7.5 million
- Mutual funds purchases through DTC's Fund/SERV system
- DTC-generated activity (such as monthly billing charges)
- ACATS charges from NSCC
- Deposit or settlement adjustments
- Short position charges
- Principal and income charges
- Participants Fund charges.

To view your net debit cap Net Debit Cap and net settlement balance, use the PTS function RMCI.

As an added measure DTC has also established limits on the maximum settlement obligation that a financial family of affiliated DTC Participants can incur. An Affiliated Family means each Participant

that controls or is controlled by another Participant and each Participant that is under the common control of any Person. For purposes of this definition, "control" means the direct or indirect ownership of more than 50% of the voting securities or other voting interests of any Person. The <u>maximum aggregate "Aggregate Affiliated Family net debit cap Net Debit Cap"</u> for the Participants comprising the an Affiliated Family is <u>currently</u> set at \$3 billion \$2.85 billion.

To ensure <u>So</u> that DTC <u>is will be</u> able to complete <u>its</u>-settlement <u>obligations</u> each day in the event of a Participant's inability to settle <u>with DTC</u>, DTC currently maintains liquidity resources of <u>\$3.2 billion</u> <u>\$3.05 billion</u>, including <u>\$1.3 billion</u> <u>\$1.15 billion</u> <u>all</u> cash <u>in the</u> Participants Fund and a committed line of credit in the amount of \$1.9 billion with a consortium of banks.

## **Grouping Accounts into Collateral Families**

If you have multiple DTC accounts, you can group them into families and instruct DTC to allocate a specified portion of your collateral and **net debit cap** Net Debit Cap to each family. You must submit instructions in writing to DTC to group your accounts into separate families. Otherwise, all of your accounts will be grouped into one family.

The accounts you designate as a family share a single CM and **net debit cap** Net Debit Cap. Securities and cash credited to one of these accounts increase the shared CM and the family's settlement balance, and could therefore serve to benefit transactions of other accounts in the family.

Sharing collateral and **net debit caps** Net Debit Caps has advantages and disadvantages. Sharing can be an efficient account structure because it allows accounts to use the available collateral and settlement credits of other accounts in the family. However, you will not be able to designate which account should benefit from specific credits incurred by a member of the family. For example:

Suppose you maintain two accounts, A and B, which are grouped into one collateral family. Assume that both accounts have recycling transactions because of insufficient **net debit cap** Net Debit Cap. If account A sends an SPP to DTC, its settlement account is credited. However, because the accounts are set up so that either account can use the available credits, if account B's transactions have a higher priority on the recycle queue, they will complete as a result of the funds that account A sent to DTC.

Conversely, assigning a separate collateral group for every account allows you to segregate your accounts and to allow the accounts to use only a specific portion of your collateral and net debit cap Net Debit Cap. However, segregating can decrease processing efficiency and increase your intraday financing requirements because excess collateral in one family is not automatically available to an account belonging to another family. You should carefully evaluate your internal procedures and determine which method is most efficient for your operations.

*Note-* If you group your accounts into families and do not provide DTC with instructions on the specific percentage of collateral and **net debit cap** Net Debit Cap to be allocated to each family, DTC allocates collateral and **net debit cap** Net Debit Cap to each family based on your intraday net debit peaks relative to your other families.

You can maintain separate families of accounts to allocate your cap among your families at your own discretion. However, DTC will apply a forced-allocation formula to major issuing paying agents, which are defined as IPAs with average daily maturity presentments measured over the most recent month equal to or greater than 5 percent of DTC's total MMI maturity presentments. A major IPA must allocate up to 40 percent of its total net debit cap Net Debit Cap to its IPA family.

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